REMARKS

Claims 1-11, 16-19, and 21 have been canceled. Claims 12-15, 20, 22-70 are pending. With this Response, Applicants amend claims 12-15, 20, 22-26, 28-30, 32, 33, 36-38, 40, 43-47, 50, 51, 54, 57-59, 61, 64, 65, and 68. All pending claims are shown in the detailed listing above.

Specification

The amendment filed on May 12, 2004 stands objected to under 35 U.S.C. § 132(a) . The Examiner asserts that the amendment introduces new matter into the disclosure. In particular, the Examiner argues, "The added material which is not supported by the original disclosure is as follows: *'document contents such as a title, a summary and the like of a television program can generally be considered metadata.'"* Office Action, p. 3.

Applicants respectfully disagree. In amending the specification on May 12, 2004, Applicants merely further describe what is clearly shown and supported in FIGS. 5 and 6 using terminology that is well-known to one of ordinary skill in the art. The term "metadata" is understood by one of ordinary skill in the art to mean "data about data." See Jonar C. Nader, *Prentice Hall's Illustrated Dictionary of Computing*, 3d ed., pp. 152-53, 425 (1998) (a copy of which is provided for the Examiner's convenience). Indeed, this is confirmed by the reference cited by the Examiner, U.S. Pat. No. 6,847,977, which recites, "Metadata, literally means 'data about data.' Metadata is data that comprises information that describes the contents or attributes of other data (e.g., media file)." U.S. Pat. No. 6,847,977, col. 4, lns. 19-21.

The "data about data" or "metadata" is further clearly supported and described in Applicants' specification as originally filed, for example, at paragraph [44] which recites, *inter alia*, "As shown in FIG. 2, it is assumed that the broadcasting program has a title and program identifier (ID) information uniquely indicating the program, an information on a

broadcast such as broadcasting service, time and duration, and information on contents such as synopsis, review, and casting." Applicants have amended paragraph 44 in this Response to state expressly what is understood by one of ordinary skill in the art: "This information for the broadcasting program--such as title, program ID, information on broadcast such as broadcasting service, time and duration, and information on contents such as synopsis, review, and casting—is "data about data" or "metadata."

Accordingly, the amendment to the specification on May 12, 2004 does not add any new matter, and as such, Applicants respectfully request that the objection to this amendment under 35 U.S.C. § 132(a) be withdrawn.

Claim Objections

The Examiner states, "The preliminary amendment of 3/8/2005 is objected to because claim 63 is not listed, and claim 68 is listed twice. Appropriate action is requested. The examiner assumes claim 63 was canceled and the double listing of claim 68 is erroneous."

Applicants respectfully note that 63 is still pending, but was inadvertently not listed in the Preliminary Amendment of March 8, 2005. Applicants have not affirmatively canceled claim 63. Furthermore, claim 68 was inadvertently listed twice. In this Response, claims 63 and 68 have been listed appropriately, and thus Applicants request that this objection be withdrawn.

Claim Rejections – 35 USC § 112

Claims 12-15, 20, 22-62 and 64-70 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts, "The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at

the time the application was filed, has possession of the claimed invention." Office Action, p. 4.

Regarding claims 12-15, the Examiner argues, "the amendment filed 3/8/2005 adds the following limitations: '*a metadata fragment related to a television program*', '*adding to-be-deleted fragment to the invalid element*' and '*the corresponding fragment contained in the invalid element are deleted*'. The examiner has reviewed the originally filed specification, and has failed to find support for the added limitations." Office Action, p. 4. Applicants respectfully traverse.

The term "fragment" is understood by one of ordinary skill in the art to mean, "A general term to refer to part of an XML document, plus possibly some extra information, that may be useful to use and interchange in the absence of the rest of the XML document." See e.g., *XML Fragment Interchange: W3C Working Draft 1999 June 30* (Paul Grosso et al. eds, 1998, 1999) (a copy of which is provided for the Examiner's convenience).

The specification as filed clearly shows and supports "fragments" in, for example, FIGS. 6-18. The specification recites, *inter alia*:

> [54] As one example application, the syntax of electronic document regarding a broadcast program is defined as follows, and application cases of an electronic document versioning method and an electronic document updating method based on XML will now be described. FIG. 6 is a diagram showing an exemplary syntax structure of a broadcast program created by the XML-based electronic document creating method to which embodiments of the electronic document versioning method according to the present invention is applied.

> [55] Broadcast programs can have information such as 'version', 'broadcast contents' and 'broadcast schedules'. It is assumed that 'Broadcast contents' have a list on 'version' and 'broadcast content' and 'broadcast content' has information on program contents such as 'version', 'title', a sole 'program identifier' indicating program, synopsis and the like. In addition, it is assumed that 'broadcast schedules' have a list on 'version' and 'broadcast schedule', and 'broadcast schedule' has broadcast-related information such as 'version', a sole 'program identifier' indicating program, 'broadcast

company', 'broadcast time', 'broadcast duration' and the like. Schema of these syntaxes is shown in FIG. 6.

[56]   Exemplary broadcast program syntaxes can be created as shown in FIGs. 7 and 8. FIG. 7 is a diagram showing an exemplary DTD showing the syntax of the broadcast program created by an XML-based electronic document creating method to which the electronic document versioning method according to embodiments of the present invention is applied, and FIG. 8 is a diagram showing an exemplary XML schema showing the syntax of a broadcast program electronic document produced by the XML-based electronic document creating method to which the electronic document versioning method according to embodiments of the present invention is applied.

Application, paragraphs [54] - [56].

Applicants have amended the specification (at paragraph [55]) in this Response to state expressly what is understood by one of ordinary skill in the art—e.g., "The 'broadcast contents' and 'broadcast schedules' can be fragments of the XML-based electronic document 'broadcast programs'."

Accordingly, the specification as filed provides clear support and antecedent basis for the claimed subject matter, and as such, Applicants respectfully request that the objection to the specification under 37 CFR § 1.75(d)(1) and MPEP § 608.01(o) be withdrawn.

Applicants have deleted the term "fragment" from these claims. Furthermore, as discussed above, "metadata" is clearly supported in the Applicants' specification as originally filed. The remainder of the language of the limitations cited by the Examiner are also fully supported in Applicants' specification, for example, in FIGS. 11 and 12 and the accompanying description of paragraphs [55]-[61].

Regarding claim 20, the Examiner argues, "the amendment filed 3/8/2005 adds the following limitations: *'updating metadata fragment included in an electronic document'*, *'a prescribed metadata fragment is stored in a client'*, *'requesting an updated version of said prescribed metadata fragment to a provider,'* *'said prescribed metadata fragment is an invalid fragment,'* *'said prescribed metadata fragment is identified by a fragment identification'* *'deleting said prescribed metadata fragment notified as said invalid fragment from said client'*. The examiner has reviewed the originally filed specification, and has failed to find support for the added limitations." Office Action, pp. 4-5. Applicants respectfully traverse.

Applicants have deleted a number of the disputed terms--including "fragment"--from claim 20. Furthermore, as discussed above, "metadata" is clearly supported in the Applicants' specification as originally filed. The limitations of claim 20 as amended are fully supported in Applicants' specification, for example, in FIGS. 1, 2, 11, and 12 and the accompanying description of paragraphs [30], [43]-[44], and [55]-[61].

Regarding claims 22-62 and 64-70, the Examiner argues, "the claims are replete with new matter. Claims 22-62 and 64-70 are directed toward a method that incorporates an *'updating'* step. Although the originally filed disclosure mentions *updating* in the *Summary of the Invention* section of the disclosure (paragraphs 10 and 11), the *Detailed Description of the Preferred Embodiments* section of the disclosure is silent with respect to *updating*, Also, claims 22-62 and 64-70 are directed toward a *'fragment'* of an electronic document, however the originally filed disclosure is silent with respect to a document fragment. Likewise, the terms *'metadata fragment'*, *'invalid fragment'*, 'to-be-deleted fragment', *'corresponding fragment'*, *'prescribed metadata fragment'*, *'fragment identifier'*, *'a fragment describing metadata'*, *'updating a fragment'*, *'deleting a fragment'*, *'fragment is based on XML'*, *'version of said fragment'* are not defined nor can they even be found in the disclosure. Furthermore, the term *'metadata'* is used in the claims, without support for the term in the

disclosure. The examiner has reviewed the originally filed specification, and has failed to find support for the added limitations." Office Action, p. 5. Applicants respectfully traverse.

Applicants respectfully note that the "Summary of the Invention" forms part of the specification for the Application and, as such, "updating" is fully supported. Furthermore, as discussed above, "metadata" is clearly supported in the Applicants' specification as originally filed. Applicants have also deleted a number of the disputed terms--including "fragment"--from the various claims. The limitations of claims 22-62 and 64-70 as amended are fully supported in Applicants' specification, for example, in FIGS. 1, 2, 11, and 12 and the accompanying description of paragraphs [30], [43]-[44], and [55]-[61].

For at least the reasons discussed above, Applicants respectfully request that this rejection of claims 12-15, 20, 22-62, and 64-70 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claims 12-15, 20, 22-62 and 63-70 also stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner asserts that, "The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 12-15, 20, 22-62 and 63-70 use the term '*notified*' in a manner contrary to the ordinary meaning of the word, and the originally filed disclosure fails to define this term as it used in the claims."

Applicants have amended the claims responsive to the Examiner's comments.

For at least the reasons discussed above, Applicants respectfully request that this rejection of claims 12-15, 20, 22-62, and 64-70 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claim Rejections – 35 USC § 102

Claims 12-15, 20, 22-62 and 63-70 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Abajian (US Pat. No. 6,847,977). Applicants respectfully traverse.

Applicants' claim 12 recites, "A method for supplying an electronic document based on XML using a syntax defining a structure of the electronic document, the method, comprising: supplying a document including an invalid element to delete a metadata related to a television program contained in a previously supplied document, wherein deletion of said metadata related to said television program is accomplished by identifying said metadata in the invalid element." These limitations are not disclosed, taught, or suggested in Abajian.

Abajian discloses a "method and system for grouping metadata search results associated with media on a computer network, such as multimedia and streaming media include binning and iterative masking." Abajian, Abstract. And, as noted by the Examiner, Abajian recites: "In an exemplary embodiment of the invention, a streaming media file is retrieved and played to determine it is valid. If determined to be invalid (not successful in step 52), the Internet stream object is assigned a later time and priority." Abajian, col. 8, lines 17-22.

The Examiner argues that "Abajian discloses a document with an invalid element related to a television program." Office Action, p. 7. Applicants respectfully disagree. The portion of Abajian cited by the Examiner discloses the validation of a media file. Abajian states, "In step 52, it is determined if the accessible media file and the associated metadata links are valid. Validation comprises determining if the Web page comprises a link to a desired media file, and also determining if the desired media file works." Abajian, col. 8, lines 13-17. Abajian most certainly does *not* disclose or teach any invalid element as recited in Applicants' claims. The invalid element of claim 12, for example, is provided "to delete a metadata related to a television program..., wherein deletion of said metadata related to said

television program is accomplished by identifying said metadata in the invalid element." As such, Abajian does not anticipate Applicants' claim 12.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 12 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 13-15 depend from claim 12 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 13-15 be allowed.

Applicants' claim 20 recites, "A method for updating metadata describing a broadcasting program, wherein the metadata is stored in a client, the method comprising: requesting an updated version of said metadata from a provider; receiving an electronic document based on XML having an invalid element which indicates that a portion of said metadata is invalid; and deleting said portion of said metadata indicated to be invalid by the invalid element from said client." These limitations are not disclosed, taught, or suggested in Abajian.

Abajian does not disclose or suggest whatsoever any "invalid element which indicates that a portion of said metadata is invalid," much less "receiving an electronic document based on XML having an invalid element which indicates that a portion of said metadata is invalid; and deleting said portion of said metadata indicated to be invalid by the invalid element from said client," as recited in claim 20. Thus, the cited reference does not render obvious claim 20.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 20 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed.

Applicants' claim 22 recites, "A method for updating an electronic document based on XML, wherein said electronic document describes metadata for a television broadcasting program that is stored in a client, the method comprising: requesting an updated version of said electronic document from a provider; receiving said updated version of said electronic

document, said updated version of said electronic document having an invalid element which indicates that at least a portion of said metadata is invalid, wherein said portion of said metadata is identified by the invalid element; and deleting said portion of said metadata identified by the invalid element from said client," and thus includes some limitations similar to claim 20. As discussed above, Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 22.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 22 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 23-27 depend from claim 22 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 23-27 be allowed.

Applicants' claim 28 recites, "A method for updating metadata related to a broadcasting program, wherein the metadata is stored in a client, the method comprising: requesting an updated version for said metadata from a provider; and deleting said metadata from said client when said metadata is indicated to be invalid by an invalid element supplied from said provider, wherein said metadata is identified by the invalid element." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 28.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 28 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 29-35 depend from claim 28 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 29-35 be allowed.

Applicants' claim 36 recites, "A method for updating metadata related to a broadcasting program, wherein said metadata is stored in a client, the method comprising: receiving a request for an updated version of said metadata from said client; and supplying

said client with an invalid element indicating that said metadata is invalid, wherein said metadata is identified by the invalid element." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 36.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 36 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 37-42 depend from claim 36 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 37-42 be allowed.

Applicants' claim 43 recites, "A method for updating metadata related to a television broadcasting program, wherein said metadata is stored in a client, the method comprising: identifying a predetermined version of said metadata as invalid; receiving a request for an updated version of said metadata from said client; and supplying said client with an invalid element indicating that said metadata is invalid, wherein said metadata is identified by the invalid element." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 43.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 43 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 44-49 depend from claim 43 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 44-49 be allowed.

Applicants' claim 50 recites, "A method for processing a response to a request for updating metadata related to a broadcasting program, wherein said metadata is stored in a client, the method comprising: receiving an invalid element to delete said metadata from a provider, wherein said invalid element indicates that said metadata is invalid, wherein said metadata is identified by the invalid element; identifying said metadata identified by said invalid element at said client; and controlling to delete said identified metadata from said

client." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 50.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 50 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 51-56 depend from claim 50 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 51-56 be allowed.

Applicants' claim 57 recites, "A method for replying to a request for updating metadata related to a broadcasting program, wherein said metadata is stored in a client, the method comprising: supplying said client with an invalid element to delete said metadata from the client, wherein said invalid element indicates that said metadata is invalid." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 57.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 57 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 58-63 depend from claim 57 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 58-63 be allowed.

Applicants' claim 64 recites, "A method for processing a response including an invalid element which indicates that metadata stored in a client is invalid in response to a request for updating said metadata, wherein said metadata is related to a television broadcasting program, the method comprising: identifying said metadata by the invalid element from said client; and controlling to delete said identified metadata from said client." Abajian does not disclose or teach such limitations. Thus, the cited reference does not render obvious Applicants' claim 64.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 64 under 35 U.S.C. § 102(e) be withdrawn and this claim be allowed. Furthermore, because claims 65-70 depend from claim 64 and include further limitations, the Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. § 102(e) also be withdrawn and that claims 65-70 be allowed.

CONCLUSION

Applicants respectfully request that the pending claims be allowed and the case passed to issue. Should the Examiner wish to discuss the Application, it is requested that the Examiner contact the undersigned at (415) 772-7428.

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